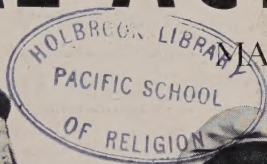


SOCIAL ACTION



MARCH 15, 1945



Alcohol Problems Dissected

Report on the Summer School
of Alcohol Studies at Yale University

E. M. JELLINEK

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SOCIAL ACTION Magazine

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KENNETH UNDERWOOD, *Mg. Editor*

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A Foreword

New Approach to the Alcohol Problem

By ALBERT W. PALMER

A scientific attack on the personal and social problems inherent in the widespread use of alcoholic beverages is at last under way.

In this modern age we have invented powerful and delicate machinery which no one even slightly under the influence of alcohol can handle without grave peril to himself and others. The drunken driver can no longer throw the reins on Dobbin's back and let that reliable old beast find the way home. The forty horses under the hood of his automobile need a clear head and a steady hand to drive them.

Another special aspect of our times is that women have entered into competition with men in nearly all vocations. This has exposed women not only to the advantages but also to the risks of what may be called the male type of our culture. Women are placed into the "male culture," not only in the vocational fields, but in practically all fields of social life including the tavern, the bar and the cafe.

The problem becomes enhanced in modern times through the high pressure salesmanship of which the liquor trade is no less innocent than other business. Salesmanship has led consumers to buy automobiles which their purses could not afford and to eat and drink foods, beverages, drugs, and patent medicines which their health could not afford.

Will prohibition come back? Probably not. But the struggle against the evils of inebriety will come back. And this struggle will benefit by the new social and psychological insights which have developed in the past quarter of a century. In this

Albert W. Palmer, one of the best-known ministers in the United States, concludes this year a distinguished career as president of the Chicago Theological Seminary. He was one of the first to urge that an issue of SOCIAL ACTION might appropriately be devoted to the School of Alcohol Studies, and his own interest and leadership in this field make it especially fitting that he should introduce this particular issue.—Eds.

struggle we must use scientific knowledge, control and substitution in place of repression. The profit motive must be challenged, false advertising curbed, and youth, in particular, must be protected against the risks.

The growing edge of this awakening against unrestrained alcoholic indulgence lies just now in the newer medical and psychological understanding of alcoholism. We know now, as no age ever knew before, the dangers of alcohol addiction because we understand the mental states that seek relief in alcoholic anaesthesia. It is at this point that "Alcoholics Anonymous" and the Yale School of Alcohol Studies are rendering great service. The factual approach of this school is exactly what is needed by this generation.

The psychiatrist and the physiologist are probably laying a better foundation than they know for a wave of wholesome revulsion against the evils of inebriety, in the saner and more sober days which we hope may lie ahead. Books like Haggard and Jellinek's *Alcohol Explored* should be read by every minister. Physiology, psychiatry and social reawakening can work toward the solution of the problem. And in all this the church must lend a hand, as a friend of the distressed, a bringer of spiritual peace to souls in tension and the provider of a fellowship characterized by social helpfulness and approval of sobriety for all who would avoid or escape from artificial relief through intoxication.

THE COVER

The cover picture is a scene from Warner Brothers' Howard Hawks production "To Have and Have Not." Whatever else may be the merits or demerits of this picture, the sympathetic treatment given by Captain Morgan (Humphrey Bogart) to Eddie, the Rummie (Walter Brennan) has done much to call the attention of the nation to the fact that alcoholics are sick people needing understanding and friendship, not a moralizing and reforming attitude.

"Why are you always taking care of that no good rummie," one of the characters asks Morgan.

"He was a good man until drink got him. Besides he thinks he's taking care of me," Morgan replies.

Alcohol Problems Dissected

By E. M. JELLINEK

In the winter of 1942 it was announced that the Laboratory of Applied Physiology of Yale University would conduct a Summer School on Alcohol Studies in the summer of 1943. Soon after this announcement 240 applications for admission had been received at the Laboratory. In the second year the number of applications came near to 2,000 and by all indications at least that number may be expected for the 1945 summer course. If such a school had been proposed only five years earlier, probably only 15 or 20 men and women would have availed themselves of the opportunity. It has often been said that the School of Alcohol Studies has created the present great interest in the problems of alcohol. The truth is that the interest in the problem has created the School. The summer courses at Yale have, however, contributed to the growth of the interest and have made it largely possible to talk about these problems without being suspected of an emotional attitude or of propagandistic designs.

People Seek Information on Problems of Alcohol

The Laboratory received an ever-increasing number of inquiries relating to information on the effects of alcohol, on the nature of alcoholism, and on the rehabilitation of alcoholics. These inquiries came from church, welfare, civic and educational organizations; state and municipal offices, and individual citizens in all walks of life.

The Laboratory began to publish popular literature on many of the questions posed by the public, but the staff felt that giving information on "this or that" aspect of the problem did

ABOUT THE AUTHOR: Dr. E. M. Jellinek is the Director of the Section of Alcohol Studies, Laboratory of Applied Physiology, Yale University; director of its Summer School of Alcohol Studies; and Managing Editor of the *Quarterly Journal of Studies on Alcohol*. He is co-author of the book, *Alcohol Explored*, and editor of *Effects of Alcohol on the Individual*, Volume I.

not suffice. It was evident that there were too few men and women in the country who had thought about the problems in their totality, who had an understanding of the involvements and implications. If educators were to teach effectively the facts about alcohol, if ministers, welfare workers and administrators were to apply effectively specific information to the solution of a problem, they had to know a hundred times as much as they had to teach or apply. Such an aim could be best achieved in a systematic course on the problems. Thus it came about that the first School of Alcohol Studies was founded.

At the 1943 and 1944 summer courses a total of 226 men and women attended. They came from 41 states, the District of Columbia and 6 Canadian provinces. There were 86 ministers representing many denominations; 34 educators from grade schools to colleges; 17 social and welfare workers; 15 magistrates and probation officers; 11 members of Alcoholics Anonymous; and among the remaining 32 students were phy-



A seminar of the School of Alcohol Studies in session.

sicians, lawyers, state liquor administrators, club officials, and representatives of the alcoholic beverage industry.

There are many misconceptions current about the nature of the summer course. Some believe that it is a temperance course, others that it is a school for the treatment of alcoholics. The Yale Plan Clinics for the rehabilitation of alcoholics is often confused with the Summer School and we have even received letters addressed to "Alcoholics Anonymous of Yale University." But oddest of all, the School has been thought of as a course on "how to drink wisely."

In the following I shall describe the actual curriculum of the School, its background, and its effects as far as can be seen at present.

The Background of the School

The Laboratory of Applied Physiology

In 1930 Dr. Howard W. Haggard and his associates began at Yale University an intensive experimental program on the physiology of alcohol. These experiments yielded valuable information on the metabolism of alcohol and particularly on factors which modify its absorption and oxidation and contributed much to the understanding of the effects of alcohol. In a practical way they contributed to a rational treatment of acute alcoholic intoxication. While the great value of these experiments must be recognized, it must be conceded on the other hand that they have contributed only indirectly to the understanding of the question of how inebriety arises. Nor have these researches yielded any tools which could be applied in the prevention of inebriety. The same may be said of the physiological investigations in all the laboratories of America and Europe.

Dr. Haggard came more and more to the conclusion that by itself physiology could not contribute essentially to the solution of the alcohol problem, but that this goal could be achieved only through an integration of researches from many

branches of science. As a first step he founded the *Quarterly Journal of Studies on Alcohol*. Before the Journal was established scientific papers relating to problems of alcohol were scattered in chemical, psychological, psychiatric, and medical periodicals and in law journals. The student of any specific aspect of alcoholism hardly ever saw his special field of investigation in relation to other fields of alcohol research. These interrelations stand out sharply in the first four volumes of this new periodical which opened its pages to the objective discussion of alcohol problems ranging from chemistry to taxation. As a second step came the organization of a unit in which representatives of sociology, psychiatry, psychology, economics and statistics would cooperate on alcohol researches and their practical application in education and therapy. This unit, which is frequently referred to as the School of Alcohol Studies, is officially known as the Section on Alcohol Studies of the Laboratory. This Section comprises a research group as well as the Summer School and the Yale Plan Clinics. The activities of this Section complement the physiological researches of the Laboratory.

Researches of the Section of Alcohol Studies

We are attacking a complex problem and it is not possible to carry out research on a complex problem as a whole, but only on its component parts. Nevertheless, it is possible to devise the individual projects in a manner which will not reduce them to arbitrary abstractions but permit of resynthesis. I can give here a general idea only of the research which we are doing.

In the area of legal research, we seek to analyze the extent to which existing or past statutes are rooted in social factors, and the extent to which statutes aim at what society expects of them and believes to be their goal. We want to test the effectiveness of statutes in terms of the prevention of death from alcoholism, alcoholic mental disorders, and related manifestations. Foremost we want to analyze the reasons of

success and failure of identical statutes in different localities. We want to test the dependence of successes and failures upon the way the statutes are handled and upon the social factors prevailing in the locality. We want to uncover those social factors which tend to weaken and those which tend to reinforce the law in action.

The objects of our sociological and psychological researches blend to a considerable extent with the objects of our legal research. We are investigating not merely inebriety, but the complex of which inebriety is an aspect. We are interested in the function of alcohol in society, i.e., in the uses to which society puts it consciously or unconsciously. We must know what abstinence, moderate and immoderate use of alcoholic beverages signify to society or groups of a society in terms of prestige, fellowship, need for the occasional relaxation of certain social rules, as well as in terms of rightly or wrongly attributed virtues and dangers. If the handling of the problem of alcoholism is to be based on knowledge, we must know to what extent and by what means society utilizes the effects on the one hand and attempts to control them on the other hand. And we must study the anomalies of action and of attitude which may arise from the possible conflict of these two opposing trends.

These objectives are to be achieved through carefully designed field surveys such as conducted by Dr. Selden Bacon on drinking habits in New Haven and our geographically more scattered survey of the experience of ministers with individual problems of alcoholism. Knowledge of the extreme form of inebriety is the objective of our study of alcoholic derelicts in cooperation with the Salvation Army at New Haven. Study of the extreme form of the use of alcoholic beverages, namely inebriety, is only one of our objects. We go into all phases of the use of beverage alcohol whether excessive or not. Briefly, we are studying drinking as a folkway.

The sociological researches are supplemented by investiga-

tions into the economic origins and economic consequences of inebriety. Increasing and decreasing expenditures on alcoholic beverages in relation to the national income and to total consumer outlay may reflect what may be called the moods of society. The organization of supply and the modes of distribution are factors which play a part in the ups and downs of consumption.

The psychological investigations tend to determine the actions and reactions of personalities in this complex of social and economic stimulation and inhibition. Past psychological research was primarily interested in the range of the psychological effects of alcohol. Our researches are more concerned with motivation. Not only the motivations of the drinker but the motivations of the abstainer, too, receive due attention. Some of our psychological projects are of a formal nature and others are by-products of clinical observations at the Yale Plan Clinics for the rehabilitation of alcoholics.

The Scientist Discovers His Social Responsibility

All our researches—only a few areas of which are mentioned here—aim at finding those facts which show the way toward the prevention of inebriety.

The nature of our researches reflects a trend which is becoming more and more evident in all branches of science. The scientist is discovering his social responsibility and society is discovering the utility of his specialized knowledge. The scientist is coming out of his seclusion and entering into the reality of life as it is lived. It is a consequence of the awakening of social responsibility that scientists must make their findings available and understandable to a wide public, and not only to their professional colleagues. In the past there has been a lag of 40 to 60 years between the knowledge of the public and the findings of research. Scientists wrung their hands in despair that the public was using obsolete facts and obsolete ideas which to the scientist had become practically mythology. It has never occurred to these scientists that if

any recrimination was called for, it should have been self-recrimination.

Espousing No Cause But the Cause of Science

The realization that scientific knowledge must be put to work, that it must take part in the practical solution of social issues, has led to the creation of the School of Alcohol Studies. That the scientific approach to the alcohol problem may be valuable was only an assumption on our part. The School is a test of this assumption. In the opening lecture of the first course I said: "To those who have doubts about the value of the scientific approach in this particular field I must say that to a certain extent my colleagues and I must share their doubts. Where science is concerned, the scientist cannot believe in untested propositions, and this proposition has not been tested. The scientist may form an hypothesis, but an hypothesis is only a belief. In a sense this School will be a test of the applicability of scientific thought to the problem of alcohol. Because of the composition of the student body of this school it should be an excellent testing ground."

Judging by the attitude of the 226 men and women who attended the first two courses, as well as by the acceptance of the school in the daily press, one may say that the School has proven to have a definite place in the handling of the problem of alcohol.

We received many letters after the first session of our School from persons who had not participated. A few hundred urged us that the School should declare itself for total abstinence. A few hundred urged us that the School should declare itself for moderation. We have received also many letters from the alumni of our School, and none of them asked us to espouse any cause except the cause of science. They also learned that the objective attitude of the scientist does not involve coldness. While the scientist does not espouse any particular solution, he recognizes the existence of the problem and he hon-

estly hopes to be able to contribute toward a way out, wherever that way may lead.

The aim of our School is to make the most recent finding of science available to the general public. We communicate such knowledge as we have to those who in their daily activities come into contact with the general public more than the scientist and who are qualified to process the knowledge which the scientists impart to them for the purpose of general consumption.

The Curriculum

The first objective of the school's curriculum is to show the complexities of the problem. We find it much more important at this time to give a broad picture than to enlarge on any specific aspect. The lecture program may disappoint many of the students. The disappointment of the different members of the student body may lie in different directions. Those who are interested primarily in the question of what to do with the alcoholic may find it a bore to have to listen to such lectures as, let us say, the philosophy of the temperance movement or the economic aspects of alcohol in modern society. On the other hand, those who are interested in alcoholism primarily as a national manifestation may be impatient with the lectures which are devoted to the individual prob-

JUVENILE DELINQUENCY

The key to juvenile drinking, as the key to juvenile delinquency with which it is often associated, is found, first, in the distortion of what should be a wholesome family. It is found, secondarily, in the kind of community life which surrounds the disintegrated or disintegrating family.

The real problem does not appear to me to be either inebriety or delinquency, but rather the problem of eliminating their causes in the family and community, which are equally the causes of physical and emotional ill health, of ignorance, of poverty, of irreligion, and of the rejection of nearly all that is fundamentally good and useful to man. Sometimes the most complex answer is the truest one. The abuse of alcohol by youth does not lend itself to easy explanation or easy solution but, having multiple causation, will yield only before a multiple approach—one that sees the necessity of many indirect actions in the interest of family and neighborhood as well as the direct ones of education and law enforcement.

—FRANCIS W. MCPHEE

From an article on "Youth, Alcohol and Delinquency" in the *Quarterly Journal of Studies on Alcohol*, March, 1944.

lems of the alcoholic and to the treatment of inebriety. But unless those interested in public care and therapy of the alcoholic learn about the economic and social involvements which have led their patients to that stage in which they appear, effort at rehabilitation will be frustrated. And those who are interested in alcoholism as a national phenomenon will never be successful until they have realized the importance of those individual problems whose aggregate forms the national manifestation. It is with this in mind that we have devised the curriculum which is described in the following pages.*

The course opens with a lecture on the alcohol problem in general. The object of this lecture is to show the many component parts of—and approaches to—the problem in their proper perspective. This is desirable, because in the subsequent lectures of a specific nature each specialty appears to be the crucial matter of the problem. In a lecture of an hour or so, the specialist cannot but give the impression that his special knowledge is the key to the problem. He has to crowd many facts into one or two hours and cannot digress to show the relation of his special data to other special data. This easily

*Names and position of instructors in last summer's school follow: Dwight Anderson, LL.B., Director, Public Relations, Medical Society of the State of New York; Selden D. Bacon, Ph.D., Assistant Professor of Sociology, Yale University; Rev. Roland H. Bainton, Ph.D., Professor of Ecclesiastical History, Yale University; Edward G. Baird, Jur.Sc.D., Research Associate (Associate Professor), Law, Section on Alcohol Studies, Laboratory of Applied Physiology, Yale University; Sybil M. Baker, Chief Social Worker, Brookline Friendly Society; Ralph S. Banay, Lecturer in Criminal Psychopathology, College of Physicians and Surgeons, Columbia University; Donald S. Berry, Ph.D., Director, Traffic and Transportation Division, National Safety Council; Winnie M. Buckels, B.A., Director of Narcotics Education, Department of Education, State of Mississippi; Rev. James A. Crain, D.D., Executive Secretary, Dept. of Social Welfare, United Christian Missionary Society; John Dollard, Ph.D., Research Associate (Professor), Social Anthropology, Yale University; Edward B. Dunford, LL.D., Attorney at Law, Washington, D.C.; Robert Fleming, M.D., Instructor in Psychiatry, Harvard University Medical School; Rev. Joseph F. Fletcher, S.T.D., Dean, Graduate School of Applied Religion; Clements C. Fry, M.D., Psychiatrist, Department of University Health, Yale University; Leon A. Greenberg, Ph.D., Assistant Professor, Applied Physiology, Yale University; Howard W. Haggard, M.D., Director, Laboratory of Applied Physiology, Yale Uni-

(Continued on Next Page)

becomes a source of confusion in the minds of the students, and thus it is important to assign the proper weights to each specialty at the very beginning of the course.

Effects of Alcohol on the Individual

There is next a group of five lectures pertaining to the effects of ethyl alcohol on the individual. (There are many other alcohols which are contained in alcoholic beverages in minute amounts, too small to have toxic effects. When alcohol is spoken of without further qualifications, ethyl alcohol is meant.)

The physiological aspects come first, because, after all, it is only through the physiological properties of alcohol that alcoholism becomes a problem. If alcohol did not have those physiological properties which it does have, if it had the properties of milk or water, there would be no School of Alcohol Studies. So while the physiological investigations in a way may not be of paramount importance to the solution of the alcohol problem, the social involvements and personal aspects of alcoholism can be discussed only after having ac-

versity; E. M. Jellinek, Sc.D., Research Associate (Professor), Applied Physiology, Yale University; Norman Joliffe, M.D., Associate Professor of Medicine, New York University College of Medicine, Chief of the Medical Service, Psychiatric Division, Bellevue Hospital, New York; Benson Y. Landis, Ph.D., Lecturer in Economics, Section on Alcohol Studies, Laboratory of Applied Physiology, Yale University, Associate Secretary, Department of Research and Education, Federal Council of Churches; Carney Landis, Ph.D., Associate Professor of Abnormal Psychology, Columbia University; Austin H. McCormick, Sc.D., LL.D., Executive Director, the Osborne Association; I. H. McKinnon, M.D., Assistant Professor of Psychiatry, College of Physicians and Surgeons, Columbia University, Clinical Director, the New York Psychiatric Institute; Rev. Francis W. McPeck, Executive Director, Department of Social Welfare, Federation of Churches, Washington, D.C.; Hon. William M. Maltbie, Chief Justice, Supreme Court, State of Connecticut; Abraham Myerson, M.D., Clinical Professor of Psychiatry, Harvard University Medical School, Director of Research, Boston State Hospital; Rev. Otis R. Rice, Ph.D., Religious Director, St. Luke's Hospital, New York; Anne Roe, Ph.D., Research Assistant (Assistant Professor), Psychology, Section on Alcohol Studies, Laboratory of Applied Physiology, Yale University; Harry S. Warner, Ph.B., Editor, the *International Student*; William Wilson, Director, Alcoholics Anonymous.

quired some knowledge of the properties and effects of alcohol as contained in beverages.

Fate of Alcohol in the Body

The first physiological lecture describes the fate of alcohol in the body. Alcohol is absorbed without change from the stomach and the intestines into the blood stream at a rapid rate. This rate is faster when the alcoholic beverage is taken on an empty stomach than after a meal; it is faster for alcohol contained in wine and distilled spirits than in beer. The faster the alcohol is absorbed, the greater is its accumulation in the blood, and consequently also the effect is greater.

A knowledge of how the body deals with alcohol is prerequisite to the understanding of what alcohol does with or to the body. Certain aspects of the psychological effects, too, can be only understood through a knowledge of the process through which alcohol runs in the body. Before one can talk relevantly about alcoholic intoxication, or about being "under the influence," he must know what concentration of alcohol in the blood means, and how concentration of alcohol in the blood is modified by many factors.

Alcohol Concentration and Traffic Accidents

The second physiological lecture deals with the significance and determination of alcohol concentration in body tissues and fluids in relation to traffic accidents. As alcohol is absorbed into the blood stream it is carried into all parts of the body and becomes extremely diluted. From 65 to 70 per cent of a man's weight is made up of water (including blood). If you were to pour one ounce of alcohol contained in approximately two ounces of whiskey into 46 quarts of water, there would be no question in your minds but that the alcohol becomes diluted to an extraordinary degree. When a man weighing 150 pounds drinks two ounces of whiskey, you do not visualize that he is pouring that one ounce of alcohol into 46 quarts of water, but

that is exactly what happens. So you can see that the greater the weight of the drinker the more diluted becomes a given amount of alcohol. The degree of the dilution, usually expressed as milligrams of alcohol per cubic centimeter of blood or other substance in which it may be present, is known as the alcohol concentration. The higher this concentration, the greater is the effect of the alcohol on the central nervous system. There are chemical tests for determining the alcohol concentration.

When the blood alcohol concentration is less than 50 milligrams per 100 cubic centimeters (in other words, less than five one-hundredths of one per cent concentration, since 100 cubic centimeters of blood weigh approximately 100,000 milligrams) it is safe to assume that the individual is sober. Beginning with 150 milligrams per 100 cubic centimeters, i.e., fifteen one-hundredths of one per cent concentration, the individual is definitely "under the influence." The degree of sobriety or intoxication between five one-hundredths of one per cent and fifteen hundredths of one per cent is uncertain.

Dr. Leon Greenberg's invention, the alcoholmeter, is demonstrated to the students. This machine is practically a self-contained, fool-proof laboratory which makes its own determination of alcohol concentration. Since there is a constant relation between the alcohol concentration in breath and blood, determinations of the latter can be made by having the subject blow into the machine. A few minutes later the alcohol concentration in the blood is registered on the dial of the apparatus.

Effects of Small and Large Amounts of Alcohol

The third physiological lecture is on the effects and after-effects of small and large amounts of alcohol on the body. Note that the first lecture dealt with what the body does to alcohol when it incorporates it, and this third lecture describes what happens or does not happen to certain body organs after small, medium, or large amounts have been taken in. Much of

the lecture refers to what does not happen, for many superstitions of the wets and the dries alike must be debunked. For instance, alcohol does not warm up the body. Only the skin warms up, but internal heat is lost. Alcohol dilates the blood vessels on the surface of the body, and thus, because of a greater blood flow to the surface, heat is being dissipated.

Some of the students get their first shock at this lecture. They are told that one or one and one-half ounces of absolute alcohol (the alcohol in 2 to 3 ounces of whiskey) do not cause any physiological harm to this or that bodily organ. But the statement of this fact does not involve any kind of evaluation of the use of alcoholic beverages. It merely states that this is the physiological effect. The physiologist as physiologist is not concerned with the social involvements. He is not concerned with whether such small intake may later lead to larger intake or whether it may ultimately lead to addiction. In his lecture he is concerned only with what happens at and around the time one or two ounces of absolute alcohol are taken by an individual. The physiologist cannot go beyond that factual statement, for, otherwise, he would be leaving his own field. Generally his statements on the effects of alcohol do not involve either approval or disapproval of its use.



Dr. Leon A. Greenberg's Alcoholometer is pictured above. The inventor is on the right behind the machine.

Nutritional Involvements of High Alcohol Intake

In another lecture the nutritional involvements of high alcohol intake are discussed. The oxidation of alcohol liberates a large amount of calories, but alcohol supplies neither vitamins, nor proteins, nor minerals. The more calories a person consumes, the more vitamins he needs. For an intake of 2,500 calories, 330 international units of vitamin B₁ are adequate, but 3,600 calories require at least 480 units of B₁. Since alcohol does not furnish vitamins, and since it crowds out foods which supply vitamins, an inadequate calorie-vitamin relation and, thus, nutritional deficiency diseases result in the heavy drinker. These are the diseases which are spoken of as the diseases of chronic alcoholism, but may occur in non-alcoholics, too. In alcoholics they are, however, of much greater frequency.

This should be of particular significance to those who are interested in teaching the effects of alcohol in the high school. These nutritional aspects of alcohol can be fitted into the science curriculum or the biology curriculum, in a way which high school students understand. They learn anyway about biological oxidation and about calories, and in connection with biological oxidation the question of alcohol and nutrition can be cogently introduced. The fact that the stomach undergoes such and such changes in 20 years and that a hobbled liver will develop in 15 or 20 years has no immediate appeal. But nutrition takes place every day. Calories are taken in every day. Vitamins are taken in every day. And today we are so conscious of these matters that we go quite deliberately about selecting our food. Gracie Fields said about an alcoholic over the radio, "He tears down in the evening with gin what he builds up in the morning with vitamins." The building up process in the morning was through a conscious selection while the destruction in the evening was perhaps not conscious.

Effects of Alcohol on Psychological Function

The fifth lecture on the effects of alcohol is entitled, "The Effect of Small Amounts on Psychological Functions." This,

too, belongs in the physiological field because it does not deal with psychological motivation but rather with psychological functions more or less on the physiological level. One ounce of alcohol slows the reaction time to a visual stimulus by approximately 6 per cent. The same amount diminishes the ability to distinguish between two lights of different intensity or two noises of different loudness. Various tasks of dexterity are affected adversely in proportion to their complexity, but familiarity with the task offsets the effect to some degree. All these effects are evidence that the central nervous system is affected by alcohol. As a matter of fact these are the only acute effects of alcohol. Other bodily organs show no acute effects after alcohol intake with the exception of an acute transitory inflammation of the liver after an exceptionally heavy alcoholic bout. The most significant evidence of psychological experiments is that alcohol is not a stimulant but a depressant. The semblance of stimulation is due to the release of some psychological functions which are ordinarily controlled by inhibitions. While alcohol interferes with task efficiency, small amounts effectively bring about sedation and relaxation.

Social and Personal Factors of Alcoholism

Up to this point the course deals with the effects of alcohol but then proceeds to analyze origins. We enter now on a group of lectures which relate to the personality aspects and the sociological factors in the use of beverage alcohol. But this group of lectures is preceded by two talks on the heredity factor, for it would be a waste of time to talk about personality aspects and the sociological factors if alcoholism were entirely a matter of heredity. If that were the case there would not be much more to say.

The Hereditary Factor in Alcoholism

First the concepts of heredity are clarified and statistics given which show that not more than 35 per cent of the alcoholics

come from hereditarily tainted families. Thus the heredity factor may be of some importance, but it is by no means the crucial factor in alcoholism. This is further illustrated by an investigation carried out on children from alcoholic and normal parents but reared in foster homes. From this research it appears that in alcoholism environment is a stronger factor than biological inheritance.

Thus the ground has been cleared for the discussion of the role of the personality and of society. I found quite a bit of confusion among our students about these matters. One student said, "Well, here is a lecturer who says that the whole thing is personality, and the other fellow says that everything is social factors. So what's true? If the experts disagree, what confidence can we have?" The answer is that the experts do not disagree. There is no conflict between the views of the sociologist and the psychologist. Personality can manifest itself only in society, and social factors can have an effect only on individuals. As a matter of fact, I would say that personality is the style in which the individual reacts to his environment.

Personality and Alcohol

From the four lectures concerned with personality it is seen that much aggression is suppressed because of social and personal requirements. But alcohol can release aggression and these aggressive tendencies can manifest themselves on the oral level as well as on the physical level, and in the extreme may result in crime. The aggression may even turn against the "self" in the form of suicide.

A careful analysis of data on crime shows that a distinction must be made between criminals who develop alcoholic habits after they entered on the path of crime and those whose criminality develops only after they have become inebriates. Only in the latter case may one speak of crime causation by alcohol. Based on such adequate standards it may be said that 25 to 28 per cent of all crime may be attributed to alcohol. While this represents a great reduction from the usual esti-

mate of 60 per cent, it still indicates that intoxication is among the major sources of crime.

An extreme personality manifestation of alcoholism is the alcoholic mental disorder. It appears that only some of these mental ailments are a consequence of prolonged excessive alcohol consumption, while in many others alcoholism is only an incidental symptom but not a causative factor. But even in the true alcoholic mental disorders, alcohol is not the sole factor. Only ten per cent of all alcoholics develop an alcoholic mental disorder. If alcohol alone could cause such disorders the incidence would be much greater. Here, as in all other aspects, it is evident that nothing about alcohol is simple. The greatest obstacles to progress in the solution of the problems of alcohol are over-simplified formulations.

On the whole, the study of personality shows that individuals who cannot manage their anxieties well, who have little tolerance for the unavoidable frustrations in life, who have unaccountable guilt feelings are the candidates for alcohol addiction. But such persons do not become necessarily alcoholics and that indicates that there are other factors at play too. These other factors may be the decisive ones and they may be found in the study of society.

Anthropology Contributes to Understanding

The next group of lectures, devoted to social factors in alcoholism, begins with a discussion of the functions of alcohol in primitive society. An anthropologist shows how anxieties are generated in primitive societies, how aggression becomes inhibited, and how these primitive societies from time to time feel that anxiety must be relieved. Aggression must be released in some controlled form and this may be brought about at alcoholic binges.

The most important contribution of anthropology to the understanding of the alcohol problem is that in primitive societies where there is no organized supply individual alco-

holism is practically unknown, but binges are rather a communal matter. On the other hand, it is significant that in spite of the absence of an organized supply the use of alcoholic beverages has maintained itself in these societies through hundreds and even thousands of years. It is also relevant to know how these beverages attained to social value and how this "value" established the custom firmly in the higher societies.

Function of Alcohol in Modern Society

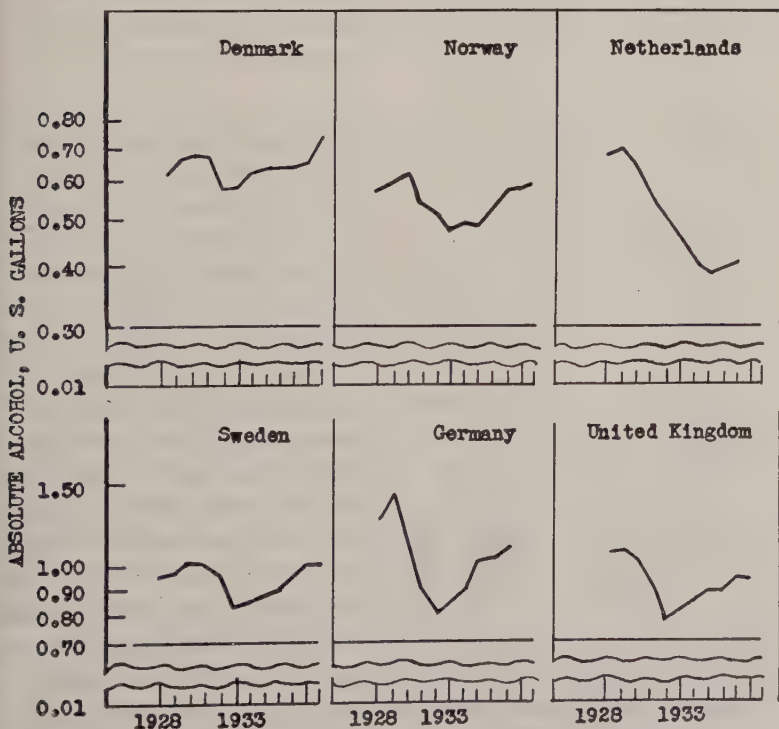
Next the function of alcohol in complex societies is shown in lectures by a sociologist. He analyzes those social factors which tend to perpetuate the use of alcohol and of alcoholism and those social factors which tend to inhibit the use of alcohol or at least alcoholic excess. The increasing specialization in modern society, the development of social classes, the intense competition within and between vocational groups are sources of anxieties and frustrations far beyond and above those occurring in primitive societies. There emerge the individual problems and individual solutions through intoxication. The original ritual use of alcoholic beverages is transferred to the festive use at christenings, weddings, and other celebrations. Persons who, as a rule, do not use alcoholic beverages, are inclined to use them on these festive occasions. This prestige of the beverage makes its abuse easier. Furthermore, the symbolic property of wine as blood becomes associated with strength and because of that high alcohol tolerance becomes a standard of virility. That standard is maintained even after the symbolic value has vanished from public consciousness.

On the other hand, as the individual incidences of intoxication increase, there also develops a tendency toward control, either through the unwritten laws of society or through formal law. The difference in the rate of alcoholism among men and women and the practical absence of alcoholism among Jews are evidence of those unwritten social laws which act sometimes

with relentless rigor. Naturally, the knowledge of such factors and recognition of these various forces equips one better to think about possible solutions. One can then exploit factors which tend to control the use and abuse within society. It is in this sense that we think of sociological research contributing to the prevention of inebriety.

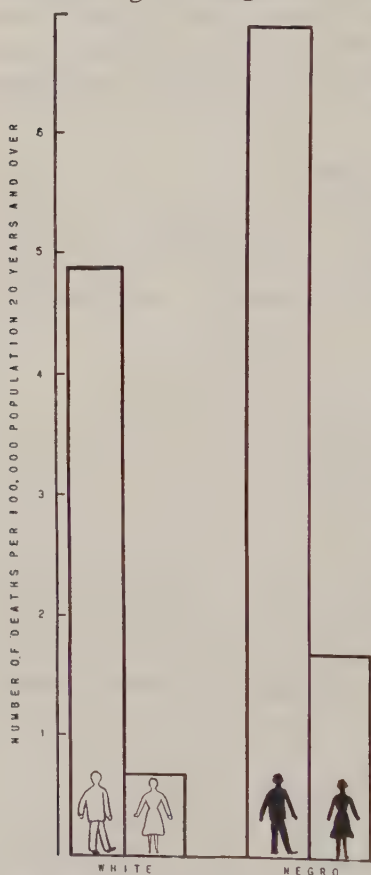
The Effect of Alcoholism on Society

Another group of lectures relates to the effects of alcohol



Absolute alcohol, from all sources, consumed in 6 European countries since 1928 (in U.S. gallons per capita). Plotted on a logarithmic scale. Note that in nearly all these countries the per capita consumption of alcohol shows an increase beginning with the year 1932, the year in which Hitler came to power. This may be a reflection of insecurity and anxiety.

on society. These discussions serve largely the purpose of characterizing the magnitude of the problem. There has been



The above graph indicates rates of death from alcoholism as a primary cause of death in white and Negro populations, aged 20 years and over, United States, 1940.

much abuse of statistics on both sides of the question and much of the indifference and ridicule of the problem may be attributed to the statistical contortions. It is important therefore, to reconsider these matters in the light of scientifically oriented statistics.

As an introduction the pitfalls and limitations of per capita consumption rates, of death rates from alcoholism, and of mental hospital statistics are shown. Prohibitionists have tried to show that prohibition caused a great decrease in deaths from alcoholism and the wets have shown a similar trend for repeal. The truth is that the rate of death from alcoholism has been on the decline beginning sometime before prohibition and the decline is still continuing. This death rate is not an index of alcoholism; it merely reflects the progress of medical science in the treatment of the so-called alcoholic bodily diseases. It is shown

through the use of valid statistics that the number of chronic alcoholics in the United States is around 700,000 and that in addition there may be 2,500,000 excessive users of alcoholic beverages. This is the incidence of excess among approximately 50,000,000 users of alcoholic beverages in this country.

Economic repercussions of alcoholism are analyzed in a separate lecture. Not counting the expenditure on alcoholic beverages, the instructor finds a loss of one billion dollars a year involved in the cost of arrests, jailing, accidents, absenteeism, and so forth. Of interest is his finding that although in absolute terms the expenditure on alcoholic beverages has greatly increased, it has remained nearly constant in relation to the national income.

An entire lecture is also devoted to the effect of inebriety on the family. The disruption of society through alcoholism is illustrated by the effects on the family. Nonsupport, neglect, maltreatment of children, and divorce are related to inebriety, but the statistical characterization of the magnitude of these effects is not on safe grounds. The analysis also shows that the marital adjustment of the alcoholic is poor even in his pre-alcoholic period.

The alcoholic traffic accident is the subject of a lecture by a director of the National Safety Council. This too is an aspect on the effects of alcohol on society. A definite determination of the contribution of alcohol to traffic accidents cannot be made but it is evident that it is a fairly large contribution. It is also evident that in a machine age such as ours inebriety poses an additional problem.

Much greater success in the curbing of the alcoholic traffic accident could be achieved if the emphasis were not on conviction for drunken driving, but on proof of the presence of alcohol in the blood. An arbitrary limit of 0.05 per cent alcohol concentration could be set without involving disagreement of experts on the question of intoxication. Such an arbitrary limit would be of the same validity as an arbitrary speed limit.

Controls of Alcoholism

A number of lectures are devoted to control factors in the alcohol problem—the church, the temperance movement, formal education, law, and community activities. Some of these possible controls have been noted already in the anthropological and sociological lectures.

Philosophy of the Temperance Movement

It may astonish some students to find that a panel on the philosophy of the temperance movement is part of the curriculum of a scientific school. But the scientist must recognize that total abstinence is as much a part of the alcohol problem as is any positive form of drinking. The temperance movement has been a controlling factor for well over 100 years. Even many temperance workers have not found out that there is a whole philosophy behind their movement. They have not recognized it because of their preoccupation with strategies. The demand for total abstinence seems to be part and parcel of an outlook on life in which the ideal of freedom is not the removal of barriers to the fulfillment of wishes but the removal of the wishes.

The role of the church in the control of alcohol is historically developed in a lecture. It is shown that the attitude of the churches to the use of alcoholic beverages parallels the attitude to slavery. Prior to the movements of social reform in the eighteenth and nineteenth century moderation was recommended in drinking as humanity in the treatment of slaves. The impetus for prohibition, as for abolition, came in part from an increase in the evils. Distilled liquors were more potent than fermented, as Negro slavery was more cruel than that of antiquity and the Middle Ages. The impetus came also from the zeal of rigoristic branches of Protestantism. The Methodists and the Quakers were the pioneers with the churches of the Calvinist tradition rallying to their support.

The legal side of prohibition is presented as judicially as hu-

manly possible. There arises no question of values. The matter is treated entirely descriptively and one gains insight into the origins as well as into the fate of the 18th amendment.

The present legislative controls are described in the School's curriculum also. There is an analysis of the content and intent of present day statutes, but there is also shown some historical development which is most instructive for the layman. He learns that much that he thought to be ancient law never had the status of law but was in the category of exhortations. It also appears that purposes which we believe to see in the statutes are often not inherent in them. Around prohibition and other types of control legislation there is actually a great deal of propaganda. It seemed desirable to have a lecture on the analysis of wet and dry propaganda. The analysis of the propaganda material is made in terms of the reaction of the bleachers and finds that the bleachers remain unmoved. The reason for this is that the dries write propaganda that appeals to the dries and the wets, too, write for their own crowd only. Neither side is gathering protagonists through propaganda methods.

Education on the effects of alcohol, on the causes of alcoholism, on all its involvements has been long regarded as a control measure. This idea may be found in the earliest temperance literature but it is even much older than that. In one of his epistles Seneca said that it is no use arguing about drunkenness, but that one must furnish the facts. The idea amounts to dissemination of education on the facts of alcohol. St. Augustine, in an epistle to Bishop Aurelius, spoke about drunkenness in North Africa and deplored its evils, and then said that where so many are perpetuating an evil one cannot command, but only teach. So the idea of alcohol education is a very old one, but it must be reconsidered from time to time.

Instruction on alcohol is as justified as instruction on iron or fats or other large world commodities. But teaching about iron is unemotional in spite of the ravages which it has caused

in this war. The instruction on alcohol must be unemotional, too. Furthermore, it should not be singled out for a separate course ordinarily, but should be dealt with in biology and again in sociology where it fits in best.

Rehabilitation of the Alcoholic

In a way the public care and the treatment of inebriates is also a control measure. The inebriates form a ready market for the bootleg trade. With their rehabilitation they cease to be a ready market. Furthermore, the children of the rehabilitated alcoholics are not exposed any more to dangerous example and even more dangerous neglect.

Aside from the control aspects, the rehabilitation of the alcoholic is one of the many important aspects of the alcohol problem. By and large the alcoholics represent good human material. By all standards of present day knowledge alcoholism is a disease or rather a disease symptom and the alcoholic deserves to be the object of public health endeavor.

In our curriculum the rehabilitation of alcoholics is discussed from the point of view of formal psychiatry as well as the diagnostic procedures of the Yale Plan Clinics and of the municipal policy in rehabilitation. Moreover, lectures trace the historical development of the religious element in the treatment of alcoholics, the role of the minister in counselling the addict,

ALCOHOLICS ANONYMOUS

Alcoholics Anonymous is an organization of former alcoholics who have been cured and who seek to cure others. Some of the principles of the organization are:

1. Honesty with yourself and complete honesty with anybody else.
2. Straighten out your difficulties with other people—don't try to keep all problems to yourself.
3. Practice the sort of giving that demands no return.
4. Believe in a life of prayer as opposed to a philosophy of self-sufficiency.

The founder in effecting his own cure found that he needed to work with another alcoholic in order to save himself. Also he learned from experience that a moralizing and reforming attitude was resented by the alcoholic, and that no one formula of cure would work for every individual. At the end of the first year, the organization had cured five alcoholics; fifteen, after the second year. Today there are 15,000 members of Alcoholics Anonymous, and local groups in about 367 places.

the contribution of the case worker, and the rousing story of Alcoholics Anonymous.

There does not appear anything complicated, anything elaborate in the treatment techniques of alcohol addiction, yet the difficulty of the task reveals itself in the fact that no recipe can be given for the treatment of any one alcoholic patient. There is neither a medicine for addiction, nor can any specific technique be applied to all inebriates. The disease that manifests itself as compulsive drinking cannot be cured in the sense that pneumonia can be cured, but compulsive drinking can be checked as diabetes is being checked. The greatest credit for the rehabilitation of alcoholics goes to Alcoholics Anonymous who in ten years have helped 15,000 inebriates to find their way back into society. The idea of the diagnostic clinic originated recently at Yale is meeting with wide interest. Such clinics in cooperation with Alcoholics Anonymous and with the utilization of various community resources, and particularly with the aid of the ministers, should be able to cope with the greater part of the inebriate population.

Seminars

The curriculum as described here covers many subjects, yet it may seem that some questions are not covered sufficiently and some not at all. There are five groups of seminars in which study of Community and Educational Resources, Legal Controls, Therapy of Alcoholism and Role of the Church are pursued intensively. These seminars give ample opportunity to take up aspects of the problem which are not included in the lectures.

The Seminar on Community Resources, for example, studies recreational facilities, housing, the utilization of hospitals, the mobilization of clubs and civic organizations for coping with the problems of alcohol.

The Educational Seminar takes up the matter of selecting material suitable for teaching in the elementary school, in

high school and in college. Popular literature, techniques of popularizing, experimental demonstrations and other means of visual education, youth movements and other subjects related to instruction on alcohol are considered.

The Seminar for Ministers deals with the role of the Church in guiding the community in questions relating to the alcohol problem. The place of facts on alcohol in religious education, and the question of pastoral counselling of alcoholics are also subjects of seminar meetings.

Agencies Which Will Help

National

NATIONAL COMMITTEE FOR
EDUCATION ON ALCOHOLISM
2 East 103rd Street, New York
City.

ALCOHOLICS ANONYMOUS
Box 459, Grand Central Annex,
New York City.

Local

Many Salvation Army centers have
special workers in the field of
alcohol problems.

Local chapters of Alcoholics Anonymous.

Mental Hygiene Associations.

State mental hospitals and their psychiatrists.

Reactions of the Students

The expression *mixed feelings* is the most descriptive term for the state of mind in which the students arrived and remained for the first few days in the summer of 1943. It was our first course, and nobody knew what to expect. Hopes for an objective study of the controversial problem mingled with fears that the new School might be only a tool of the old propaganda. But of which propaganda: wet or dry? There were surmises in both directions. But those who were plagued by suspicions nevertheless hoped. According to their dispositions they either hoped that the course would be truly objective or that if it were propaganda it would coincide with their convictions. It is safe to say that the majority hoped for a truly scientific exposition of matters concerning alcohol.

No Ax-Grinding at the School

After three or four days there was no doubt in the minds

of the students about the objectivity of the School. It was evident that this was far removed from ax-grinding and the relief was evident in the whole bearing of the students. Some temperance workers may have felt regrets that the School did not declare itself for total abstinence and some wets may have preferred a stand for moderation to scientific detachment, but even these regrets vanished rather soon.

That the anxiety about the new venture wore off so quickly was not alone due to the unquestionable objectivity of the lectures, but perhaps even more to the freedom of discussion. The question period after each lecture gave ample opportunity to the students to clarify questions and to voice their own opinions. While the moderator would intervene when students attempted to make a scientific lecturer interpret his data in terms of moral judgments, there was no interference with their own interpretations and conclusions. At first the words prohibition or moderation would be uttered with a mixture of defiance and a guilty feeling of having violated the rules of etiquette. There was surprise and maybe even a little disappointment when the moderator did not rule out these utterances, and when they did not meet with sarcasm.

People State Their Views

Perhaps the greatest factor in eliminating the tension that was felt concerning these matters was that on the third day of the first summer course representatives of temperance movements of different shadings, members of State Liquor Control Boards and a representative of the liquor trade were called to the platform to formulate their views of the alcohol problem. There was still fear of heckling, but the applause in which wets, neutrals, and dries joined after the first student's prohibitionist formulation cleared the air. Gracefully the temperance workers applauded in turn the formulations presented by the Director of the Table Top Association, an association of liquor licensees.

After the third day there was no more embarrassment felt over the voicing of subjective attitudes on the part of the students. As time went on, however, it became more and more evident that a profitable discussion could be carried on without involving the subjective feelings attaching to the matter. This was evident not only in the statements but also in the type of questions. First questions tended to be loaded. Verbal traps were hidden all over the place. When the students saw, however, that the scientists would not rise to the bait and that no profit was derived from such questioning, they turned to questions which would arise in any scientific discussion.

Some questions displayed quite a degree of anxiety. Students who had some pet topic would try to introduce it in question form, at most inappropriate times, for fear that no appropriate occasion would arise for broaching the question. Thus, for example, a question relating to the reason for the downfall of the Roman empire was asked following a lecture on the effect of alcohol on psycho-motor functions. Apparently students had not read the lecture schedules sufficiently carefully or the schedules did not reveal sufficiently the subjects of the lectures, for otherwise it would have been apparent that every question would have its opportune time. Because of that experience, the curriculum begins now with a full orientation over the lecture course.

That the school is not propagandistic is now well known and no fears are generated on that score. But there is still a good deal of uncomfortable feeling about how it will be possible to be under the same roof with a wet or a dry respectively. There is even some feeling on both sides that there may be contamination of views through association with the opposing side.

Pedagogically the bringing together of the opposing sides turned out to be most valuable. While no student of total abstinence conviction has become a moderationist and no wet student has become a prohibitionist, paradoxically enough

some feeling of solidarity has developed. They learn to listen to each other respectfully as soon as they find out that they belong to the same zoological species, that a dry is not necessarily a kill joy, and a moderationist or even outright wet may be a good husband and father. As one of our students put it, "Wet or dry, they are good eggs." The earnestness with which both sides are devoted to their studies, the fact that both sides develop loyalties toward the same teachers brings about a fellow feeling in spite of greatly divergent goals.

These students will never become faithless to their original goals, but they discover that goals are not reached tomorrow and that in the meantime there is much to be done in mitigating existing evils. This mitigation can be brought about only through cooperation, and the cooperation only through understanding. Here lies the promise of future solutions.

Students are gathered in small discussion groups and the groups, after a few days, are not cliques, but rather heterogeneous gatherings. And what they talk about is alcohol and more alcohol. The "bull sessions" continue late into the night. Some ministers and liquor law enforcement officers may be gathering in the room of the editor of a beer journal. There they munch corned beef sandwiches and talk about possible action in the community, action in which both camps should cooperate.

These ideas of cooperation do not remain plans, but are realized in the months following the summer sessions. Some ministers who attended the School confer with Liquor Control Commissions and with representatives of the liquor industry on such matters as sales to minors, selection of liquor licensees and many other relevant questions of control. Other students, wet and dry, have arranged joint lecture conferences on problems of alcohol.

Carry-Over Value of the School

Many of the past students have taken part in educational activities relating to alcohol and have utilized the material

obtained at the School. This material appears also in the revision of many of the alcohol texts and questionnaires of temperance organizations. In at least four cities ministers who attended the School took the initiative in organizing groups of Alcoholics Anonymous. The idea of the Yale Plan Clinics has also been widely spread by the students. One of the best indications of the impress that the School has made is the great number of invitations it has received to hold courses in many parts of the country. Last summer a school in the Yale pattern was held in Portland, Oregon, at the invitation of the state.

That there were a few students over the country who unintentionally misrepresented the school is only natural. They were so few in number that the matter cannot be regarded as a serious one.

That a School on such an emotion-ridden, controversial problem should have met with success has great implications. May it not serve as a pattern for the first approach to the solution of other burning social issues? As I have pointed out before, the results are only in part ascribable to the objective lecture program. Living together, thinking together, discovering each other, belonging to a common group and having some common loyalties in spite of divergent goals constitute probably the more important factors.

At the end of the course the students leave with a feeling that the problem of alcohol is much more complex than they ever imagined. That is a wholesome feeling. One of the barriers to the solution of these complex problems is that too many believe that they know everything that the solution requires. Too many problems have remained unsolved because they have not been approached with the respect which their magnitude demands.

Good Reading

Selden D. Bacon, *Inebriety, Social Integration, and Marriage* (Memoirs of the Section on Alcohol Studies, No. 2. Order from *Quarterly Journal of Studies on Alcohol*, 4 Hillhouse Ave., Yale Station, New Haven, Conn.)

Haven Emerson, editor, *Alcohol and Man*, Macmillan.

H. W. Haggard and E. M. Jellinek, *Alcohol Explored*, Doubleday, Doran and Co.

E. M. Jellinek, editor, *Alcohol Addiction and Chronic Alcoholism*, Yale Press.

E. H. Starling, *Action of Alcohol on Man*, Longman.

Anne Roe, *A Survey of Alcohol Education in Elementary and High Schools in the United States*. (Order from *Quarterly Journal of Studies on Alcohol*, 4 Hillhouse Ave., Yale Station, New Haven, Conn.) SL 20.6

H. W. Neuman, *Acute Alcoholic Intoxication*, Stanford University Press.

J. A. Wadell and H. B. Hague, *Alcohol in Moderation and Excess*, William Byrd Press, Inc.

Edward A. Strecker, *Alcohol: One Man's Meat*, Macmillan.

SL 2

A STUDY PACKET ON ALCOHOL

If you desire more scientific information on (1) the problems of alcohol, (2) alcoholic beverages as a food and their relation to nutrition, (3) what happens to alcohol in the body, (4) the drinker and the drunkard, (5) how alcohol affects psychological behavior, and (6) the rehabilitation of inebriates be sure to order the special study packet on alcohol now being distributed by the Council for Social Action. The packet consists of six pamphlets prepared by the School of Alcohol Studies described in this issue. Bought singly, the six pamphlets would cost sixty cents. Through a gift to the Council for education on alcohol problems it has been made possible to offer the packet for twenty-five cents. The packet contains a guide to aid in the study and use of the pamphlets.